

Claims

1. A method for treating powder particles consisting of a Cu(In,Ga)Se_2 compound,
characterized in that
the powder particles and an amount of sulfur are placed into a vessel and the vessel contents consisting of the powder particles and the sulfur are heated up and kept at a constant temperature for a period of time.
2. The method according to Claim 1,
characterized in that
the particles and the sulfur are filled into a two-zone ampoule, whereby the powder particles are placed into one of the zones and the amount of sulfur is placed into the other zone.
3. The method according to one or both of Claims 1 and 2,
characterized in that
the particles are heated up to a temperature between 400°C and 600°C [752°F and 1112°F].
4. The method according to one or more of the preceding claims,
characterized in that
the sulfur is heated up to a temperature of about 100°C [212°F].
5. The method according to one or more of the preceding claims,
characterized in that
the particles and the sulfur are kept at a constant temperature for a period of time between one hour and 50 hours.
6. The method according to Claim 1,
characterized in that
a mixture consisting of the powder particles and the sulfur is filled into an ampoule.

7. The method according to one or both of Claims 1 and 7,
characterized in that
the mixture consisting of the powder particles and the sulfur is heated to a
temperature between 300°C and 600°C [572°F and 1112°F].
8. The method according to one or more of Claims 1, 6 and 7,
characterized in that
the mixture consisting of powder particles and sulfur is kept at a given tem-
perature for a period of time between 5 minutes and 4 hours.
9. A mono-particle membrane solar cell comprising a back contact, a
mono-particle membrane, at least one semiconductor layer and a front contact,
characterized in that
the mono-particle membrane contains the powder particles treated according
to one or more of Claims 1 to 8.